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Evaluating the March of Dimes NICU Family Support Program: Parent Support for Neonatal Transport

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ABSTRACT

The purpose of the pilot study was to work in collaboration with the March of Dimes Family Support Team and the University of Connecticut Health Center (UCHC) to develop an evaluation instrument for the assessment of the Transport Module implemented by The March of Dimes Neonatal Intensive Care Unit (NICU) Family Support Program initiative at the UConn Health Center. A literature review of the topic illustrated the need for continuing research of successful family support interventions for parents experiencing the transport of their high-risk infant to a tertiary care NICU immediately after delivery. NICU staff members and the March of Dimes Organization can utilize the evaluation instrument created for this study to identify parent support needs and the effectiveness of module implementation across the country. Effective family support will increase parent confidence and decrease anxieties that are often associated with the birth of a pre-term infant. Key words: March of Dimes Family Support Program, NICU, transport, parents, prematurity.

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Chapter I: Introduction

According to studies, during an average week in the United States approximately 79,078 babies are born (National Center for Health Statistics [NCHS], 2003, 2004; US Bureau of Census [USBC], 2003-2005). Each week approximately 9,776 babies are born preterm (less than 37 completed gestational weeks) and 6,380 babies are born with low birth-weights (less than 2,500 grams or 5.5 pounds) in the US (NCHS, 2003, 2004; USBC, 2003-2005). Due to the rapid technological advancement in the care for premature critically ill infants, survival rates have increased with the transport of these infants to medical centers capable of providing advanced care. Many states have designated specific neonatal intensive care units as a level three facility or higher. The distinction indicates that they are equipped to provide care to extremely high-risk and low birth weight infants with complex or critical illnesses. These units are often only located in one or two medical centers in each state, demonstrating why many high-risk infants born in smaller community hospitals may need to be transported. For example, during an average week in Connecticut, 81 babies are born preterm and 63 babies are born with low birth-weights (NCHS, 2003, 2004; USBC, 2003-2005). There are only 3 tertiary care centers in Connecticut that can support the medical and surgical needs of this specialized population. At one tertiary neonatal intensive care unit in Connecticut, 199 neonatal transports were received during the fiscal year of 2007 (DeFrancesco, 2008).

Background

As part of their national Prematurity Campaign, The March of Dimes has created a NICU Family Support Program to educate and comfort families in crisis (TMODF, 2007). There are currently 41 NICU Family Support projects being carried out in hospitals throughout the country including the District of Columbia and Puerto Rico (TMODF, 2007). The program facilitates the

implementation of NICU family support by funding a part-time NICU Family Support Specialist with experience in neonatal care. The Family Support Specialist serves as a central liaison between the March of Dimes and the NICU families. He or she is also responsible for organizing a Parent-Professional Action Committee and providing families with the specialized knowledge and support they may need while on the unit (TMODF, 2007). Educational materials and community resources help to aide families in the emotional and physical adaptation to life with a premature infant.

In June 2006, The University of Connecticut Health Center (UCHC) was chosen as the first hospital in Connecticut to join the March of Dimes Neonatal Intensive Care Unit Family Support Project (Loucks, 2006). The Family Support Program at UCHC has since implemented three of the specialized modules developed by the March of Dimes to individualize support for the specific needs of families within the NICU. Modules include Transport, Parent-to-Parent Support, and Transition to Home. This specific research study focused on the effectiveness of the Transport Module in regards to parent support before, during, and after transport. The purpose of the module was to enhance family coping, understanding of their newborn's condition, and communication with the transport team to ease disruptions of the normal attachment process. Implementation of the module included distribution of parent resources on what to expect when their baby is transported to the NICU, driving directions to the NICU, ways to allow photo opportunities before transport, information regarding local lodging near the receiving hospital, in-service training of the transport team and initiatives to increase family call backs and notification that the infant arrived at the NICU. While the March of Dimes Family Support Program is utilized in NICUs throughout the United States, no evaluation plan had been developed to detect the effectiveness of each module, thus the need for this pilot project.

Statement of the Problem

The emergent transport of a critically ill neonate from birth hospital to tertiary care unit is quite common, yet little has been done to aid the emotional and physical support needs of families.

Purpose of the Study

The purpose of the research study was to work in collaboration with the March of Dimes Family Support Team and the University of Connecticut Health Center (UCHC) to develop an evaluation instrument for the assessment of the Transport Module implemented by The March of Dimes Neonatal Intensive Care Unit (NICU) Family Support Program initiative at the UConn Health Center.

Limitations of the Study

Limitations of the study included the use of a small convenience sample based on the NICU population and a limited time span. Use of a small sample size decreased generalizability of the results. A limited time span between implementation of the study and data collection decreased the number of reported findings.

Chapter II: Literature Review

The following review has addressed the special support needs for parents experiencing the transport of their critically ill neonate from the birthing hospital to a specialized tertiary care Neonatal Intensive Care Unit (NICU). The need for support mechanisms in the NICU for families living in rural or outlying areas of significant distance from the receiving hospital is also addressed. A thorough review of the literature found in journals, research reports, and electronic databases (PubMed, Ovid, Medline) was conducted. The retrieval of information for this topic was difficult to find in that there was little previous scientific research on the specific subject. Much of the literature and research surrounding the topic was conducted in the United Kingdom or Canada. Research conducted on this topic was limited and outdated in the United States. The review will examine the neonatal transport service and its psychological and emotional effect on parents. Recommendations for improving parental support during neonatal transport from the transport team, doctors, and nurses in both the birth hospital and referral hospital will be noted. In addition, the review will describe topics requiring further study and application of findings in order to effectively improve the NICU transport service.

Effective Communication Enhances Parental Experience

Before transport and immediately after the birth of their ill baby, parents are suffering acute emotional problems (Affonso et al, 1992). The need for neonatal transport to a referral hospital away from the mother often intensifies the stress and anxiety of parents who are already coping with the prospect of leaving their baby in an intensive care environment (Steeper, 2002). Effective communication between parents, hospital staff, and the transport team can help to enhance the transport experience for parents.

The literature review, “Neonatal transportation: exploring parental views” was written and published in the *Journal of Neonatal Nursing*, by Susan Steeper (2002). It highlighted the negative perceptions that parents have surrounding neonatal transportation. Steeper (2002) identified that when honest information whether it be positive or negative is provided in a clear, concise manner, with special attention paid to parents’ sensitivity and understanding of the information conveyed, effective trust relationships are achieved between the communicator and parents. In turn parental anxiety and apprehension is decreased. Steeper (2002) highlighted that communication “is as important as the reliability of the equipment being used” during transport (p. 174). Information should be individualized to parents’ specific needs and learning style while parents should be encouraged to ask questions and reassured of the benefits of neonatal transport to a tertiary care center. Steeper (2002) noted that time constraints associated with emergency transport often prohibit an opportunity for parents to express fears, questions, or anxiety. This increases parental anxiety and the lack of adequate information communicated during transport.

Steeper (2002) recommended to transform parents’ negative experiences of neonatal transport by providing understandable information in a fashion that allows for two-way communication. Simple explanations and sensitivity to mothers’ cognitive function, which is often altered by anesthesia, fatigue, and anxiety should be considered to avoid misconceptions. Parental visits to the NICU before transport are encouraged and in the event that parents cannot visit the NICU, booklets should be provided to describe the environment and outline NICU policy, personnel, and care practices. Parent encouragement should be provided at the earliest point to facilitate parental comfort and to empower parents to become involved with their baby’s care. Steeper’s (2002) article also encouraged follow up discussions with families regarding their transport experience and suggestions for improvement in order for the NICU to maintain

the provision of valuable care. When parents have the opportunity to ask questions before transport, express concerns, and plan ahead, their anxieties are diminished. The effective utilization of communication techniques by the transport team provides parents with relevant information and support services to decrease their fear and stress, allowing for a positive parent perception of the transport experience.

David Wilman's (1997) article, Neonatal transport: the effect on parents," published in the *Journal of Neonatal Nursing*, is a literature review. Wilman's (1997) research suggested that communication is often the biggest problem associated with transport situations. Medical staff at both hospitals should directly initiate communication in order to arrange for a cohesive transition. Wilman (1997) noted that attention should be paid to parental perception of information that is relayed by transport nurses and nurses at the referral hospital due to parental drowsiness and inability to fully grasp the situation at hand. Cultural issues and language barriers should also be addressed during transport. Wilman (1997) found that a positive, hopeful, climate of communication can be established by medical staff with the provision of careful information giving, personalized care by introducing first names, phoning the mother frequently after admission of the transported infant, providing the mother with a contact phone number for nurses, doctors, and social workers at the referral hospital, and reaching out to the family in order to develop a trusting relationship between the transport team, referral hospital, and parents.

Wendy Finsterwald's (1998) article, "Neonatal transport: communication-the essential element," was published in the *Journal of Perinatology*. Although Finsterwald's article is not a scientific research study, it describes the two educational methods used within The Bronson Methodist Hospital Neonatal Transport System to enhance effective communication among staff members and family during neonatal transport. The educational methods used were the

development of site visits between the 17 birthing hospitals and the NICU hospital as well as the distribution of informative publications. To encourage "experience leading to knowledge at a time of low stress," the NICU staff is invited to visit the 17 birthing hospitals included in the transport system, while the birthing hospitals are invited to visit the NICU (Finsterwald, 1998, p. 358). Staff has time to meet, learn about each other, and form relationships. If staff cannot participate in site visits, informational books are administered. Two books were created. The *Referring Hospital Reference Manual* described the 17 birthing hospitals and was given to the NICU staff and transport team. Information included the names of head nurses/managers in the obstetrics department, charge nurses during each shift, physician names, phone numbers and specialties, nursery visiting policies, infection control policies, back-transfer placement, obstetrics department staffing, types of infants that are accepted for back-transfer, routine discharge teaching and requirements, ancillary services (radiology, laboratory, availability of in-house physicians, and names of physicians who insert chest tubes), and the capacity for overnight and or time alone for parents with their transferred infant. The *Transport Personnel Manual* described the NICU and transport team, protocols, goals, and personnel criteria for each birthing hospital. A personal side of the transport manual introduced transport team members with a picture, educational background information, when they started in the NICU, when they started on the transport team, and why they are involved in NICU transport. This was well received and allowed birthing hospital staffs to learn more about the transport people they would be communicating with. It also allowed staff to educate parents on who would be caring for their baby during transport. Finsterwald (1998) noted, "when everyone involved has knowledge and feels that they are a vital part of the care team, effective communication is facilitated" (p.160).

When effective communication between birthing hospitals, transport teams, and receiving hospitals occurs, parents are better informed and reassured during the transport process.

Educating Parents Before Transport

Jenny Cross (1995) conducted a research study, "Communication from a distance: a study of maternal satisfaction with information-giving during and after transfer of critically-ill neonates" that was published in the *Journal of Neonatal Nursing.* Her study was conducted in Nottingham, United Kingdom, "to survey effectiveness of information packs and portable videos as well as the individual explanations given by the transport team in preparing mothers for the transfer of their baby" (Cross, 1995, p. 32). Twenty mothers who experienced neonatal transport were surveyed. Overall, "89% felt they were given an adequate explanation of the condition of their baby" and "94% of mothers found the information pack helpful and those that watched the video found it to be reassuring and informative" (Cross, 1995, p.32). The informational video educated parents on why babies are transported, when parents can join them, visiting policies of the NICU, the environment in the NICU, what parents can do for their sick babies, how babies are fed in the NICU, staff who will be caring for their baby, advice on how to dress in the NICU, and what facilities are available to parents. The video was shown to parents before transport and team members were available to answer questions. The information pack given to parents contained a baby diary, general neonatal information, a map to the NICU, and a Polaroid picture of the baby for parents to keep. Results from this study indicated that language barriers were a difficulty. Cross (1995) recommended that an interpreter be arranged before transport for all non-English speaking families. Cross (1995) also suggested that fathers be given a personal card with important NICU information on it to prohibit fathers from taking the entire informational pack away from mothers at the birthing hospital. Lastly she recommended

that the booklet be redesigned into a "loose-leaf personal organizer format" that will allow information to be customized to parents' needs (p.35). The study found that information packs and videos are "at best adjuncts to excellent individualized information giving by experts" in order to efficiently maintain effective communication (Cross, 1995, p.35).

Alleviating Psychosocial Effects of Transport & Promoting Confidence

The article, "High-risk maternal and neonatal transport: psychosocial implications for practice," published in the *Dimensions of Critical Care Nursing* journal is not a direct research study, yet Davis and Hawkins (1985) provide guidelines for sensitive critical care nursing interventions and awareness techniques that aid parents' ability to cope with the transport of their high-risk neonate. Psychosocial concerns identified by parents in response to neonatal transport are feelings of exaggerated worry pertaining to the infant's medical condition, feelings of hopelessness, fear of an unfamiliar city or hospital, difficulty assuming parental roles when nurses and doctors are providing life supportive care, and difficulty maintaining contact when distance or a lack of transportation is a problem. Role conflict is also a problem when the father is the first to experience more nurturing contact with the transported baby than the mother.

Davis and Hawkins (1985) designated critical care nurses at both the delivery and referral hospitals as main figures for parent support. They developed a standardized assessment tool, the Psychosocial Assessment of the Transport Family, for nurses to recognize parents' perceptions and psychosocial effects of neonatal transport. Questions regarding family support mechanisms, evident stressors, and the parents' expectations for the infant as well as perceptions of the infant and transport experience are included. Once nurses recognize strengths and weakness associated with parental coping, areas of need for parent support are identified and specific interventions are initiated. Interventions secure a positive parental attachment experience, which is often

interrupted by the separation created by neonatal transport. Critical care nurses serve as important intermediary people to provide phone calls and progress reports of the neonate's status, when parents are often separated during a neonatal transport. Referral hospital nurses should provide parents with photographs or letters "written" from their infant, encouragement to visit, hold, feed, and change the infant, as well as involvement in decision-making to allow parents control over their infant's care. Assisting parents with feelings of guilt and grief associated with infant separation and providing external sources of support are made possible with flexible NICU visiting hours and telephone policies. Davis and Hawkins (1985) suggested that parents also be encouraged to regain control and confidence in caring for their neonate in private family rooms where they have the opportunity to interact alone, yet with the security of knowing that nurses are close bye. The support role that critical care nurses assume as directed by Davis and Hawkins (1985), allows for increased parental communication, transition, and coping with high-risk neonate transport during a psychosocially stressful time in parents' lives.

David Wilman's (1997) article, Neonatal transport: the effect on parents," published in the *Journal of Neonatal Nursing*, categorized the varying psychosocial effects on parents after the transport of their newborn baby to the NICU. Staff members often tend to view parents with lesser importance than the neonate. Wilman's (1997) article identified extra stressors on parents involved in neonatal transport and the need for parental support in such categories as emotional problems, the family group, visiting patterns, psychological developments, distance and communications, attachment and bonding, and financial burdens. The article's key points stated that "the increase in stress, due to emotional and financial factors as well as problems with communication and visiting at a distance, can seriously undermine important family

relationships, including bonding with the new baby, and the long term stability of the parents' partnership" (Wilman, 1997, p.16).

Concerning parents' emotional problems, Wilman (1997) documents the feelings of grief, guilt, pain, and shock that parents often experience. He also documents others references, which suggest that the transportation of a neonate and its magnification of parental vulnerability and intense feelings of anxiety are directly related to feelings of low parental confidence. He stressed that parents of a baby transferred to a referral hospital must be given more attention to a program for stress reduction than parents who have not experienced transport. Attention must also be paid to the parents' ability to express unrealistic hope, that because their baby is being transferred to a referral hospital, the skills of the new unit will absolutely cure or save the baby. Wilman (1997) identified the family group and the nurse's role to assess parents' sense of control that has been eroded or overcome by jealousy when the family feels that the baby has "become the property of the medical team" (p. 18). By designating parents as the proper guardians of the infant, nurses can reestablish the power and control that parents feel they have lost during the transport of their newborn. To encourage family support, Wilman (1997) suggested allowing parents to select close friends or family members who are allowed to visit at all times, specifically in transport situations where distance and the ability to reach the referral hospital is sometimes difficult. He also identified multiple sources, which support the idea that there is a correlation between decreased visiting from parents of transported infants, which decreases the nurse's ability to assess parents' psychosocial needs. It is recommended that keen nursing observation is paid to parents and their interaction with the infant at the time of visits to ensure that adequate attachment and caretaking needs are met. Nurses should also assess the father's psychological coping ability as fathers typically find themselves caught between being

with the baby at the NICU or with the mother at the birthing hospital, in addition to managing tasks at home. Lastly, Wilman (1997) indicates the magnification of conventional problems experienced by parents of infants in the NICU when distance, an unfamiliar environment, lack of normal support systems, and extended lines of communication become a result of transported infants.

Initiating a Support Person

The article, "Emotional impact on parents of transported babies- considerations for meeting parents' needs," was published in the *Critical Care Clinics* journal by Frischer and Gutterman (1992). Frischer and Gutterman (1992) interviewed two transport teams of level three nurseries, in addition to six families who had recently experienced the transport of their neonate. Transport teams recommended allowing parents to see, hold, and touch their infant before transport and to provide as much information as possible (steps of transport, phone number of NICU, and contacting parents upon the infant's arrival to NICU). Fischer and Gutterman's (1992) interview of parents identified areas that precipitated parental helplessness and loss of control: late onset of information provided to parents, lack of sensitivity to parents' conception of the situation, understanding of severity, and inadequate provision of directions to the receiving hospital. Recommendations to aid parental experiences at the birth hospital and receiving tertiary care hospital were produced. These included providing parents will a support person, who will reduce demands on the medical team by maintaining contact, patience, and acceptance with parents whenever possible and facilitating contact between the transport team and parents. The support person can aid the transition by providing a memento such as a hat or blanket to parents, as well as a photograph and an opportunity to say goodbye before transport, which will help to facilitate and maintain the attachment process. The support person at the birthing

hospital can also provide contact information of the receiving unit, a support person there to speak with, and a detailed map of directions, areas for food, and lodging. A support person at the receiving hospital is recommended in order to reunite parents with their infant, answer questions or concerns, and to familiarize parents with the unit as well as communicate the infant's medical condition in an effort to reestablish parental control and relieve feelings of helplessness. If followed, these recommendations from Frischer and Gutterman (1992) will create a unified effort among the transport teams, parents, and specialized support persons, who can provide parents will a smoother emotional adjustment to the critical condition and location of their newborn infant.

David Wilman's (1997) article, Neonatal transport: the effect on parents," published in the *Journal of Neonatal Nursing*, noted that one of the most valued recommendations for improved communication is the implementation of a "family care coordinator" who can perform many of the nursing tasks that require family orientating, psychosocial screening, support, and liaising between hospitals. In reference to attachment and bonding, Wilman (1997) found that grieving and bonding cannot be done at the same time, therefore a family care coordinator must implement grief reducing strategies to reassure parents that separation will not permanently damage their relationship with the baby. Bonding can begin with photographs given to the mother by the transport team or family care coordinator at the time of transport. The photograph serves as an image for the mother to cling to and a source of grief relief. A family care coordinator can also assist parents of rural or outlying areas with long travel distances. Assistance with the cost of long distance phone calls and the financial burdens of lengthy hospital stays would decrease financial burdens that parents face.

Summary

Having reviewed the literature, it is evident that the psychological and emotional effects of the delivery of high-risk infants are intensified by neonatal transport. Parents tend to have an overall negative perception of the transport process. The immediate transportation of a neonate can cause disruptions to the attachment process and a withdrawal from normal parent-infant bonding as the parents may inadvertently prepare for the infant's sudden death. During the transport process, parents may have feelings of guilt, fear, grief, shock, loss of control, helplessness, failure, vulnerability, exaggerated worry, pain, decreased confidence, and difficulty assuming the parent role (Wilman, 1997; Frischer and Gutterman, 1992). The relief of these feelings and increased coping can be achieved when the transport team and medical staff effectively communicate with parents regarding their infant's medical condition. Honest two-way communication between care providers and parents increases parental knowledge of the transport process and alleviates the psychosocial effects of transport (Steeper, 2002). With the development of a NICU family care coordinator who could serve as a support person for families as well as the implementation of the suggested guidelines from the literature, a smoother emotional adjustment and effective parental coping with the transport process can be established. Areas for increased research as indicated by the literature include increased qualitative and quantitative studies regarding interventions to formulate positive parental perceptions of the transport process and increased studies regarding the father's and the extended family's perception of the transport process.

Chapter III: Methodology

Approach

Over the course of approximately twenty-four months, the Chapter NICU Advisory Council (C-NAC) at the UConn Health Center met once a month to discuss transport module implementation and the services needed within the NICU. C-NAC consisted of the March of Dimes Family Support Specialist, staff nurses, nurse managers, doctors, nurse practitioners, occupational therapists, UConn student researchers, and past NICU parents. Council meetings provided an opportunity for members of the transport team to create program implementation guidelines, educational resources, and comfort measures to enhance parent support. Review of the literature highlighted the need and rationale for specific family support related to transport. Based on the literature review an Evaluation Plan was developed to assess parent perceptions of the effectiveness of the transport module implementation. IRB approval was obtained through the UConn Health Center and the University of Connecticut- Storrs campus in order to carry out the study. The UConn Summer Undergraduate Research Fund and the March of Dimes Organization provided additional funding to aide in project development.

Subject Selection and Description

A convenience sample of all parents who had experienced the transfer of their infant from birth hospital to the UConn Health Center NICU during the months of February 2008 to April 2008 was used.

Instrumentation:

An evaluation instrument (appendix A,B,C) was developed to assess parent perceptions of the transport module. The instrument was created based on literature review of NICU transport and instrument development, input from CNAC members, and pilot testing with expert

nurses and parents. A preliminary evaluation was created and reviewed by doctors and nurses who were involved in CNAC and also part of the transport team at the UConn Health Center. Input was received and the evaluation was edited based on the recommendations. The same group did a second review and the instrument was edited and pilot-tested by previous NICU parents who held positions in CNAC. The evaluation instrument used was a survey, which included and area for demographic data collection, a likert-scale from strongly agree to strongly disagree or not applicable to evaluate quantitative data, and space with open-ended questions to evaluate qualitative data. Demographic questions included parent relationship to the infant (mother, father, other), age, marital status, education level, primary language, how soon after delivery their baby was transported, and previous experience in the NICU. There were 17 quantitative questions and 6 qualitative questions, which evaluated program quality and implementation success. The quantitative questions addressed topics regarding if parents felt prepared for the transport, found educational and community materials helpful, if the transport team allowed them to visit with their baby and take pictures before transport, if they were comfortable with the transport team, notified when their baby arrived to the NICU, and overall satisfied by their experience with the transport team. Qualitative questions addressed topics regarding what the transport process was like for parents, how they felt before and after the team arrived, if there was anything they wished they knew but weren't told before transport, if the team alleviated or increased their stress, and if there was anything they'd like to see changed about the transport process.

Data Collection Procedures

The procedure was performed with anonymous participation by parents in the NICU who had experienced transport within seven days. The Match of Dimes Family Support Specialist

handed surveys to parents. An information sheet was included with the survey describing the study, inviting parents to participate, and requesting that they place completed surveys into designated boxes located in the NICU. Anonymous surveys were collected once a week and stored in a locked drawer at the University of Connecticut. Student researchers did not participate in interactions with parents.

Data Analysis

Quantitative data analysis was conducted using SPSS version 14 to complete simple frequencies and bar graphs. Qualitative data was examined for commonalities and grouped into major themes.

Chapter IV: Results

Item Analysis

The sample size for the transport survey was four (N=4). All babies were transported for prematurity and lung development. Transport time ranged from 4-5 hours after delivery to 3 days. Quantitative data indicated 100% of parents had never had a baby in the NICU before. 75% of parents agreed that they felt prepared for what to expect before their baby was transported, 75% agreed or strongly agreed that the reading materials they received were helpful, while 100% agreed or strongly agreed that the transport team introduced themselves, explained the process to them, and that they understood who would be caring for their baby and why their baby was being transported. 100% of parents agreed or strongly agreed that they had an opportunity to visit with their baby before transport, felt that their needs were respected by the transport team, and found the team to be polite and courteous. 75% of parents agreed that they received an information packet before transport while 25% of parents disagreed. Also, 75% of parents agreed or strongly agreed that they understood how to contact their baby's caregivers after transport, but 75% disagreed that they were notified when their baby arrived at the receiving hospital. Overall, 100% of parents agreed or strongly agreed that they were satisfied by their experience with the NICU transport team.

Qualitative data extracted two generalized themes: Transport Induces Parental Stress and Transport Team Provides Relief. Open-ended responses indicated that parents were emotional, heartbroken, and stressed by the transport process and the fear of not knowing what would happen to their baby. Parents also responded that they felt that their child was in good hands once the transport team arrived, they were glad that their baby was being taken to a level three NICU, and felt comforted and reassured by the smile that the transport team gave. In addition,

parents indicated that the transport team alleviated their stress by telling them everything, answering all questions, and explaining everything they were doing.

A full summary of quantitative and qualitative data can be found in appendix A and B.

Chapter V: Discussion

Conclusions

Do to the nature of this pilot study data analysis is limited. The study will be continued in order to increase the sample size and generalizability. Preliminary data analysis suggests that parent support during transport can be a valuable intervention. The March of Dimes Family Support Program's Transport Module has been a positive influence on parent comfort and support throughout the transport experience. Analysis also illuminated the need for transport teams to continue to increase communication of the baby's arrival at the receiving hospital after transport. The study has proven that evaluation is crucial in assessing which factors of the transport the module have already been adequately implemented and what areas still need improvement. Module evaluation using parent surveys can increase caregivers' awareness of parents' specific needs and experiences during transport.

Implications for Practice

NICU staff members and the March of Dimes Organization can utilize the evaluation scale to identify parent support needs and the effectiveness of module implementation across the country. Indications for further program development are evident and continuing family support for transport is still needed. Utilization of the evaluation instrument will enhance quality of care. Families will have increased parental confidence and decreased anxiety with the family support they receive as a result of the March of Dimes Family Support Program.

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Appendix A: Instrument with Quantitative Data Frequencies

Parent Evaluation of Transport

Please circle or write the answer that best applies to you:
Your relationship to infant: Mother Father Other Your age:
Completed level of education: Grade 8 9 10 11 12 AA BA MA PhD other
Marital status: Married Single Partner
How soon after delivery was your baby transported to the UCHC NICU:
Why was your baby transported:
Have you had a baby in the NICU: Yes No What is your primary language:

For each statement below, circle the number to the right that best fits your judgment of the program's quality.
If any one of the questions does not apply to you, please circle the NA option
Scale: 1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5- Strongly Disagree

Statement/Judgment:	Scale					
1. I was prepared for what to expect before my baby was transported	1	2 75%	3	4	5	NA 25%
2. The reading materials provided to me were helpful	1 25%	2 50%	3	4	5	NA 25%
3. The transport team introduced themselves to me	1 50%	2 50%	3	4	5	NA
4. The transport team explained the transport process to me	1 50%	2 50%	3	4	5	NA
5. I understood why my baby was being transported	1 50%	2 50%	3	4	5	NA
6. I understood who would be caring for my baby during transport	1 50%	2 50%	3	4	5	NA
7. The transport team provided me with an opportunity to visit and take pictures with my baby before transport	1 25%	2 75%	3	4	5	NA
8. The transport team provided me with a packet providing helpful driving directions to the NICU and information describing local restaurants, food areas, and reduced price lodging near UCHC	1 50%	2 25%	3	4 25%	5	NA
9. I understood how to contact my baby's caregivers after transport	1 50%	2 25%	3 25%	4	5	NA
10. I felt my needs were respected by the transport team	1 75%	2 25%	3	4	5	NA
11. The transport team was courteous	1 75%	2 25%	3	4	5	NA
12. The transport team was polite	1 75%	2 25%	3	4	5	NA
13. I felt comfortable allowing the transport team to care for my baby	1 75%	2 25%	3	4	5	NA
14. I was notified when my baby had arrived at the other hospital	1	2 25%	3	4 50%	5 25%	NA
15. I am satisfied by my experience with the NICU transport team	1 75%	2 25%	3	4	5	NA

Appendix B: Qualitative Data Results

17. How did you feel before and after the transport team arrived? (Please describe your thoughts, emotions, feelings, etc)	**18. Is there anything you wish you knew, but weren't told before your baby's transfer?**	**19. Was there something the team did to alleviate your stress?**	**20. Was there something the team did to make you feel more stressed?**	**21. Is there anything you would like to see changed about the transport process?**
I was comfortable before cause all that was needed for my premy was available for her.	If she was going to be transported back or not.	Yeah, they told me everything and I wasn't at all stressed about the baby.	That nurse at the hospital tossed my baby back in the incubator ad handled her too rough. Right after she told us not to be handling her at all. Cause we could hurt her to death. She the one who could hurt her to death.	Nothing but the Maternity nursery is another story.
Before the team arrived there were too many variables, the fear of not knowing was overwhelming. Once the team arrived I felt as my child was in good hands.	No	They were very much willing to answer all of my questions.	No	No
Before the team arrived I was calm. I hadn't seen my babies except when they were delivered. So I didn't realize how fragile they were. Once the team came, and I saw the boys, that is when I realized how serious this is.	Nope :)	They gave me the smile I needed to know that everything would be ok.	Nope	No, I had 2 boys come here and one leave and I think the process is wonderful.
I was feeling really nervous crying and I just wanted to be with my baby.	No	They explain everything they were doing	No	No

Appendix C: Demographic Data Results

Relationship	Age	Education	Marital Status	Transport Time	Why baby was transported	Experience in NICU before	Primary Language
Father	23	12	Partner	5 hours later	Lung development	No	*
Father	39	AA	Married	3 days after delivery	*	No	English
Mother	*	AA	Married	4 hours later	25 weeker	No	English
Mother	18	12	Married		Not breathing/lung development	No	*

* = Respondent did not answer the question